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ABSTRACT

This study investigated whether the Developmental Indicators for the Assessment of Learning-Revised (DIAL-R) norms, established with American children, are applicable to a Canadian population. Based on an early childhood model which incorporates ecological validity as well as predictive validity, the DIAL-R assesses three areas: motor, concepts and language. The pre-school screening instrument was administered to 320 Montreal children ranging in age from two to six years. Data analyses by age (3-month intervals) revealed significant differences from the American population, with the present population scoring significantly higher at each age range. No significant trends were found between males and females. Intercorrelation coefficients between the three assessed areas ranged from .75 to .79. Quantitative differences may be reflective of: (1) the sampling techniques employed in the present study; (2) different degrees of acculturation between populations; (3) different testing settings; and (4) enthusiasm of volunteer testers in the present study. Based upon the data new cutoff points (norms) are suggested to identify children who may have potential problems and children who may be potentially gifted. Predictive validity studies need to be demonstrated for the Canadian population and special attention should be given both false positives and false negatives. (Author/PN)

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The use of the Developmental Indicators for the Assessment of Learning - Revised (DIAL-R) preschool screening test for the early identification of learning disabled children in a Canadian population

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ABSTRACT

DIAL-R, a preschool screening instrument widely used in the United States, was administered to 320 children from the Montreal area. The age of the children ranged from 2 to 6 years old. Data analyses by age (3 month intervals) revealed significant differences to the American population with the present population scoring significantly higher at each age range. No significant trends were found between males and females. Inter correlation coefficients between the three subtests ranged from .75-.79. Differences are explained based upon cultural and sampling differences. Based upon the data new cut off points (norms) are suggested to identify children who may have potential problems and children who may be potentially gifted. These new norms are tentative and additional research is necessary before the DIAL-R can become a valid screening instrument for a Montreal preschool population.

I

The early identification of children at high risk for academic and psychological problems and the development of intervention programs for those children have become areas of major concern in recent years (Lerner, Mardell-Czudnowski & Goldenberg, 1981). Programs aimed at primary preventative psychotherapy and early childhood intervention have become well established and accepted (Abidin, 1980; Derevensky, 1981; Field, Goldberg, Stern & Sostek, 1980; Fine, 1980; Ramey & Haskins, 1981; Tjossem, 1976).

Eminating from PL94-142 many states have adopted legislation mandating and ensuring that public school systems develop programs for the identification of children at high risk for academic failure and for providing preventative services. A recent survey indicated that 33 states presently mandate some form of screening in the preschool or early school years (Gracey, Azzara & Reinberg, 1984). While physical abnormalities, gross motor, intellectual impairments and major cognitive and behavioral problems are generally readily detected by parents or the child's physician at an early age, the detection of less gross and apparent problems such as learning disabilities and mild behavioral problems may not always be effectively noticed by parents or physician's observations (Kurtz, Neisworth & Lamb, 1977).

Effective screening programs must incorporate three essential criteria: comprehensiveness, acceptable reliability and validity data, and ease of administration (Berman, 1977; Keogh & Backer, 1973; Lerner et. al., 1981; Thorpe & Werner, 1974). While elaborate and sophisticated evaluation procedures could be implemented, the financial cost would be prohibitive. As a result, efficient screening mechanisms and tests have been developed. These screening procedures

are the first step in the identification of high risk children and both psychologists and educators recommend they be followed by more intensive assessment if warranted (Gallierani, 1982; Gracey et. al., 1984; Lerner et. al., 1981).

While the importance of early identification is widely acknowledged in the United States other countries have not followed the American lead. Within Canada, early identification procedures are readily welcomed and viewed positively, however significant variation and discrepancies are evident in this multicultural country. Standardized or lack of standardized procedures are dependent upon provincial initiatives. Since few tests have been developed and have established Canadian norms a major concern among Canadian educators and psychologists is the applicability of American normed tests for a Canadian population.

As such, the primary purpose of the present study was to examine the applicability of the DIAL-R (Developmental Indicators for the Assessment of Learning - Revised, Mardell-Czudnowski & Goldenberg, 1983; 1984) on a selected Canadian population. Based upon an early childhood model which incorporates ecological validity as well as predictive validity, the DIAL-R has been widely accepted by many School Boards within the United States, Comprising assessment in three areas: motor, concepts and language, the DIAL-R was standardized on a large representative sample of the American population stratified according to sex, age, ethnicity, geographic region and size of the community.

The present study sought to investigate the applicability of the DIAL-R for a Montreal anglophone population. Of particular concern

was whether the American norms established were applicable to this population. The results of a similar study using Taiwanese children suggested that while some differences existed with the U.S. normative data, the test adequately met the standards of a screening test for that culture (Mardell-Czudnowski, Hwang & Wang, 1984).

METHODS

Subjects

A total of 320 children (171 boys and 149 girls), aged from two to six years old, participated in this study. The distribution according to age and sex can be seen in Table 1. Anglophone children

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Insert Table 1 about here

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were enlisted from day care facilities, preschool, kindergarten, grade 1 classes, and several came from an early childhood intervention program. Children were selected from a variety of socio economic areas in and around Montreal.

DIAL-R

The DIAL-R (Mardell-Czudnowski & Goldenberg, 1983) consists of three subtests: motor, concepts and language. Each area contains eight different items, scores are obtained for each area and a total score is used to identify potentially gifted children, normal children or high risk children. In addition to performance on all tasks behavioral observations are noted. This test is presently being widely used in a number of centers throughout the United States.

Procedure

Testing was conducted by seven different DIAL operators within the child's school or day care center. All DIAL operators had been extensively trained in the administration and scoring of the test. An extensive training package is included with the test. The DIAL-R incorporates ecological validity and as such three children are tested simultaneously. At any of the testing sessions, three operators were conducting the testing, each being responsible for one subtest. Typically, the testing material was arranged in three different areas in the same room where the child was engaged in scheduled activities with his peers. The child was called by the operator at one of the three areas of testing. When testing was finished in this area, the child proceeded to the next area or returned to the group activity until the next operator called the child. Testing time was approximately 20 minutes in total per child.

RESULTS

When the DIAL-R was standardized using the American sample, all DIAL-R tasks had to demonstrate consistent developmental trends within the specified behaviors in order to be included in the final 24 items. Tables 2, 3, 4, and 5 present the data for the Montreal and U.S.

Insert Tables 2, 3, 4 and 5 about here

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sample. Means and standard deviations by age for motor, concepts and language areas, and for total scores respectively are presented. In

both samples, one can observe normal developmental trends, with older children scoring higher, although within the Montreal sample the progression is less continuous. This is most probably an artifact of a much smaller sample. Nevertheless, aggregation correlations of DIAL-R total score and age yielded a correlation of .82. As can be seen in Tables 2, 3, 4, and 5 girls tend to score slightly higher than boys in all subtests although this finding is neither consistent or statistically significant.

High intercorrelations between all subtests and total scores can be found in Table 6. These correlations closely approximately those found by Mardell-Czudnowski and Goldenberg (1983).

Insert Table 6 about here

The DIAL-R norms, as defined by the DIAL-R original standardization study, used DIAL-R total score means as central points. For each age group, cut-off points (for high risk or potentially gifted) were established by measuring +1.5 standard deviations from the mean total score (sum of subtests). Using these cut-off points, the DIAL-R test classifies a child as 'OK' (within the normal range) if the child scored within the limits of these cut-off points. A child scoring below the cut-off point is classified 'potential problem' requiring further assessment for learning disabilities. A score of 1.5 standard deviations above the mean is considered "potentially gifted".

Tests (t tests) using mean scores from the U.S. sample as normative reference points, for each age level, were compared with the Montreal sample. Anglophone children in the present sample were found

to score considerably (statistically significant) higher than the U.S. population for all age groups.

Establishment of Montreal Norms

The DIAL-R norms and cut-off points as previously discussed were established by measuring 1.5 s.d. below and above each age group mean. These arbitrary cut-off points were chosen to identify 6.68% of the children at each end of the continuum ('potential problem' and 'potential gifted'). Because children from the present sample scored on average significantly higher than the U.S. normative sample, the DIAL-R norms could no longer be employed to identify the 6.68% of children population who may be 'potential problems' or 'potentially gifted'. By incorporating the original DIAL-R cut-off points, one would fail to identify an important proportion of children. Similarly, one would overclassify the number of children who, because they score 1.5 s.d. or more above the U.S. mean, may be 'potentially gifted'. Table 7

Insert Table 7 about here

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shows the percentages of children in our sample classified as 'potential problem' or 'potentially gifted' if the U.S. DIAL-R norms are used. As such, new cut-off points were determined, as in the original standardization study, by measuring 1.5 s.d. below and 1.5 s.d. above the total mean score for each age group using the present sample. As several discrepancies were noted between scores and age groups, several extrapolations were performed. If a lower cut off point (as determined by the appropriate mathematical formula was

calculated for the potentially learning disabled group) was established for an older age group the cut off scores using the lower and higher age group were mathematically extrapolated to make a continuous and clinically meaningful cut off point. This was also done for those cut off points for the potential gifted group. These new cut off points which are considerably higher than the U.S. population can be seen in Table 7.

DISCUSSION

The results incorporating a limited sample of Montreal Anglophone children clearly suggests that they score significantly higher than the American normed population using the DIAL-R. While some sex differences were found the clinical meaningfulness appears somewhat limited. Of interest to note is that performance on the motor scale in the present sample tends to approximate the U.S. norms much more closely than performance on the language and concepts subtests. Unlike the study using Taiwanese children (Mardell-Czudnowski et. al., 1984) little qualitative differences were found. Rather, most of the differences appear to be of a quantitative nature.

These quantitative differences may be reflective of the sampling techniques employed in the present study. Whereas the U.S. data was derived on a regional basis and preschool children were recruited from a variety of sources the present sample consisted of children enrolled in either day care centres, an early childhood intervention program (Derevensky, 1981), preschool centres, and with older children coming from primary classes within elementary schools. Thus all had some form

of educational experience.

While an attempt was made to include children from all socio-economic areas the majority of students were from middle class areas. The data with a limited low SES population suggests that total scores (combined scores from all 3 subtests) may be substantially lower (approximately 12 points on the average). This finding approximates that found by Mardell-Czudnowski and Goldenberg (1983) of inner city populations scoring approximately 10 points below the middle class average. It is quite plausible that the higher scores may be more reflective of direct instructional strategies employed in the preschool centres rather than having superior aptitude to the U.S. populations. As well, Anastasi (1976) has noted differences between cultures at different ages may be reflective of different degrees of acculturation. The pluralistic society within Montreal and the emphasis on multilingualism and multi culturalism may have influenced performance scores. While this is speculative at best, additional research from more unilingual communities within Canada may provide useful information.

Another factor which may account for higher scores with the present group of children evolves around the testing setting. Although the manual does not specify the kind of setting in which the testing took place, the DIAL-R manual and the training video give one the impression that the children were usually brought to a unfamiliar place for testing. In the present study testing was done in a familiar setting (either the child's day care or preschool centre). This may have in turn served to minimize the child's anxiety and subsequently allowed him to perform better.

Finally, the DIAL operators (testers) in the present study were undergraduate and graduate students in Education and Psychology who volunteered to participate in this project. As such, they were highly motivated and very interested in interacting with children. While all scores and protocols were double checked for accuracy their enthusiasm may have had some impact upon the testing situation.

Before definitive norms can be established and the DIAL-R becomes a valid screening instrument for Montreal preschool children, additional research is necessary. Specifically, the limited sampling population especially at the younger ages needs to be increased as well as including a greater number of children from low SES areas. It would also be highly advantageous to obtain a sample of children who have not participated in any early childhood programs.

Finally, before the DIAL-R can become a useful screening instrument to help identify preschoolers who are 'potential problem' or 'potentially gifted' in relation to school achievement, predictive validity studies need to be demonstrated for this population. Although good predictive validity has been reported for the U.S. children, additional research is necessary with this new population. Special attention should be given toward looking at both False Positives and False Negatives. While additional work seems mandatory, the data suggests it may become a useful clinical tool for psychologists and educators the instrument holds considerable promise and further validation of the suggested norms should be performed.

Table 1: Age and Sex Distribution

AGE	MALES	FEMALES	TOTAL
2-0 TO 2-2	2	2	4
2-3 TO 2-5	3	6	9
2-6 TO 2-8	6	6	12
2-9 TO 2-11	7	10	17
3-0 TO 3-2	8	5	13
3-3 TO 3-5	10	6	16
3-6 TO 3-8	11	12	23
3-9 TO 3-11	16	7	23
4-0 TO 4-2	11	8	19
4-3 TO 4-5	15	12	27
4-6 TO 4-8	12	8	20
4-9 TO 4-11	12	7	19
5-0 TO 5-2	8	8	16
5-3 TO 5-5	7	7	14
5-6 TO 5-8	6	4	10
5-9 TO 5-11	10	10	20
6-0 TO 6-2	7	12	19
6-3 TO 6-5	8	7	15
6-6 TO 6-8	7	6	13
6-9 TO 6-11	5	6	11
	171	149	320

Table 2: Mean and Standard Deviation of Motor Area Scores

AGE	Montreal Sample MALES			Montreal Sample FEMALES			Montreal Sample ALL			U.S. SAMPLE ALL		
	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.
2-0 TO 2-2	2	2.00	1.00	2	5.00	2.00	4	3.50	2.18	96	3.9	3.8
2-3 TO 2-5	3	4.67	1.70	6	4.67	1.70	9	4.67	1.70	121	5.3	3.3
2-6 TO 2-8	6	5.83	1.34	6	6.83	1.86	12	6.33	1.70	108	6.7	3.3
2-9 TO 2-11	7	7.00	2.78	10	8.20	3.12	17	7.71	3.04	150	8.3	3.7
3-0 TO 3-2	8	11.88	3.06	5	8.80	3.06	13	10.69	3.41	142	9.8	4.1
3-3 TO 3-5	10	11.50	2.80	6	12.67	5.09	16	11.94	3.86	139	11.6	4.1
3-6 TO 3-8	11	14.00	4.24	12	15.33	3.75	23	14.70	4.05	146	13.4	4.1
3-9 TO 3-11	16	17.00	3.74	7	20.14	3.56	23	17.96	3.96	163	15.2	4.1
4-0 TO 4-2	11	13.55	3.03	8	18.50	2.83	19	15.63	3.83	167	16.4	3.8
4-3 TO 4-5	15	19.47	3.74	12	21.92	3.33	27	20.56	3.76	203	17.5	3.9
4-6 TO 4-8	12	23.92	3.30	8	21.13	4.40	20	22.80	4.02	202	19.0	4.0
4-9 TO 4-11	12	21.08	4.66	7	24.86	4.61	19	22.47	4.99	187	20.1	3.6
5-0 TO 5-2	8	24.63	4.77	8	24.00	3.24	16	24.31	4.09	214	20.8	4.1
5-3 TO 5-5	7	25.57	3.54	7	26.71	3.37	14	26.14	3.50	122	22.4	3.0
5-6 TO 5-8	6	27.83	1.67	4	27.50	4.33	10	27.70	3.03	150	23.1	3.2
5-9 TO 5-11	10	25.90	3.67	10	28.60	1.69	20	27.25	3.16	135	23.7	3.4
6-0 TO 6-2	7	26.43	2.50	12	26.83	5.41	19	26.68	4.57	—	n.a.	n.a
6-3 TO 6-5	8	28.50	0.87	7	29.71	1.48	15	29.07	1.34	—	n.a.	n.a.
6-6 TO 6-8	7	29.14	1.36	6	29.00	3.61	13	29.08	2.64	—	n.a.	n.a.
6-9 TO 6-11	5	28.60	2.06	6	27.17	4.22	11	27.82	3.49	—	n.a.	n.a
	171			149			320			2447		

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Table 3: Mean and Standard Deviation of Concepts Area Scores

AGE	Montreal Sample MALE N	MEAN	S.D.	Montreal Sample FEMALE N	MEAN	S.D.	Montreal Sample ALL N	MEAN	S.D.	U.S. SAMPLE ALL N	MEAN	S.D.
2-0 TO 2-2	2	6.00	2.00	2	9.50	0.50	4	7.75	2.28	96	3.7	4.3
2-3 TO 2-5	3	7.33	3.30	6	5.67	2.36	9	6.22	2.82	121	5.8	4.5
2-6 TO 2-8	6	8.83	5.01	6	13.50	5.71	12	11.17	5.86	108	6.3	4.4
2-9 TO 2-11	7	10.14	1.88	10	13.50	2.58	17	12.12	2.85	150	8.9	5.0
3-0 TO 3-2	8	18.00	7.50	5	13.40	3.56	13	16.23	6.67	142	9.5	5.4
3-3 TO 3-5	10	17.30	5.12	6	18.50	3.15	16	17.75	4.52	139	11.2	5.3
3-6 TO 3-8	11	15.45	1.88	12	18.25	4.92	23	16.91	4.03	146	13.1	5.5
3-9 TO 3-11	16	22.63	3.98	7	25.29	4.59	23	23.43	4.35	163	15.0	5.6
4-0 TO 4-2	11	21.27	3.62	8	24.63	2.06	19	22.68	3.48	167	16.7	5.6
4-3 TO 4-5	15	27.27	2.86	12	26.92	2.93	27	27.11	2.90	203	17.7	5.6
4-6 TO 4-8	12	27.58	2.40	8	27.50	2.06	20	27.55	2.27	202	18.7	5.5
4-9 TO 4-11	12	25.08	2.72	7	26.57	2.92	19	25.63	2.89	187	20.0	5.0
5-0 TO 5-2	8	28.75	1.85	8	27.75	1.98	16	28.25	1.98	214	21.2	4.8
5-3 TO 5-5	7	28.71	0.88	7	28.29	2.60	14	28.50	1.95	122	22.5	3.6
5-6 TO 5-8	6	28.67	1.60	4	28.75	1.09	10	28.70	1.42	150	24.0	3.2
5-9 TO 5-11	10	26.00	5.18	10	28.10	2.07	20	27.05	4.08	135	23.9	4.0
6-0 TO 6-2	7	26.29	3.28	12	28.08	2.14	19	27.42	2.76	-	n.a.	n.a.
6-3 TO 6-5	8	28.25	1.39	7	29.57	1.29	15	28.87	1.50	-	n.a.	n.a.
6-6 TO 6-8	7	26.86	3.40	6	29.83	1.34	13	28.23	3.04	-	n.a.	n.a.
6-9 TO 6-11	5	29.00	1.41	6	26.33	3.59	11	27.55	3.11	-	n.a.	n.a.
	171			149			320			2447		

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Table 4: Mean and Standard Deviation of Language Area Scores

AGE	Montreal Sample MALE			Montreal Sample FEMALE			Montreal Sample ALL			U.S. SAMPLE ALL		
	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.
2-0 TO 2-2	2	5.00	2.00	2	9.50	6.50	4	7.25	5.31	96	6.2	5.6
2-3 TO 2-5	3	11.67	2.05	6	9.67	6.18	9	10.33	5.27	121	8.3	5.7
2-6 TO 2-8	6	10.67	5.71	6	16.50	5.50	12	13.58	6.32	108	10.3	5.7
2-9 TO 2-11	7	14.43	4.03	10	17.60	3.93	17	16.29	4.27	150	12.4	5.5
3-0 TO 3-2	8	18.13	5.01	5	12.80	6.11	13	16.08	6.04	142	12.8	6.1
3-3 TO 3-5	10	20.70	5.78	6	20.33	4.23	16	20.56	5.26	139	15.5	5.6
3-6 TO 3-8	11	19.09	2.57	12	21.42	4.79	23	20.30	4.06	146	17.4	5.2
3-9 TO 3-11	16	24.31	3.31	7	24.14	2.10	23	24.26	3.00	163	18.7	4.7
4-0 TO 4-2	11	23.00	2.86	8	23.13	4.28	19	23.05	3.53	167	19.3	5.0
4-3 TO 4-5	15	24.87	3.36	12	25.42	2.84	27	25.11	3.15	203	20.7	4.0
4-6 TO 4-8	12	28.17	2.27	8	24.88	3.02	20	26.85	3.05	202	21.6	4.1
4-9 TO 4-11	12	24.42	3.71	7	27.43	3.02	19	25.53	3.76	187	22.2	3.7
5-0 TO 5-2	8	26.13	6.23	8	28.25	0.97	16	27.19	4.59	214	23.2	3.8
5-3 TO 5-5	7	26.57	1.99	7	29.14	1.12	14	27.86	2.07	122	23.4	3.8
5-6 TO 5-8	6	27.33	2.36	4	28.50	2.69	10	27.80	2.56	150	23.9	3.2
5-9 TO 5-11	10	25.90	5.05	10	26.70	1.62	20	26.30	3.77	135	24.4	3.5
6-0 TO 6-2	7	25.00	6.41	12	26.83	3.76	19	26.16	4.99	-	n.a.	n.a.
6-3 TO 6-5	8	27.38	1.93	7	29.57	1.40	15	28.40	2.03	-	n.a.	n.a.
6-6 TO 6-8	7	27.14	3.14	6	27.83	2.61	13	27.46	2.93	-	n.a.	n.a.
6-9 TO 6-11	5	29.60	1.02	6	26.83	4.63	11	28.09	3.75	-	n.a.	n.a.
	171			149			320			2447		

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Table 5: Mean and Standard Deviation of DIAL-R Total Scores

AGE	Montreal Sample MALE			Montreal Sample FEMALE			Montreal Sample ALL			U.S. SAMPLE ALL		
	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.
2-0 TO 2-2	2	13.00	5.00	2	24.00	5.00	4	18.50	7.43	96	13.9	12.6
2-3 TO 2-5	3	23.67	6.18	6	20.00	8.50	9	21.22	8.00	121	19.4	11.7
2-6 TO 2-8	6	25.17	11.04	6	36.67	9.27	12	30.92	11.70	108	23.3	11.9
2-9 TO 2-11	7	31.57	4.89	10	39.40	6.50	17	36.18	7.04	150	29.6	11.9
3-0 TO 3-2	8	48.00	13.19	5	35.00	10.56	13	43.00	13.78	142	32.3	13.3
3-3 TO 3-5	10	49.50	11.81	6	51.50	10.28	16	50.25	11.30	139	38.3	12.6
3-6 TO 3-8	11	48.55	5.43	12	55.00	10.77	23	51.91	9.22	146	43.9	12.5
3-9 TO 3-11	16	63.94	7.88	7	69.57	8.58	23	65.65	8.50	163	48.9	11.9
4-0 TO 4-2	11	57.82	7.80	8	66.25	6.57	19	61.37	8.41	167	52.4	11.5
4-3 TO 4-5	15	71.60	6.37	12	74.25	7.71	27	72.78	7.12	203	55.9	11.2
4-6 TO 4-8	12	79.67	3.86	8	73.50	6.95	20	77.20	6.11	202	59.2	10.6
4-9 TO 4-11	12	70.58	6.92	7	78.86	7.40	19	73.63	8.14	187	62.3	10.0
5-0 TO 5-2	8	79.50	11.07	8	80.00	3.04	16	79.75	8.12	214	65.2	10.0
5-3 TO 5-5	7	80.86	4.42	7	84.14	6.36	14	82.50	5.72	122	68.4	7.6
5-6 TO 5-8	6	83.83	2.97	4	84.75	5.80	10	84.20	4.35	150	71.0	7.7
5-9 TO 5-11	10	77.80	12.12	10	83.40	3.47	20	80.60	9.35	135	72.1	8.8
6-0 TO 6-2	7	77.71	9.48	12	81.75	10.13	19	80.26	10.08	—	n.a.	n.a.
6-3 TO 6-5	8	84.25	3.38	7	88.86	2.42	15	86.40	3.76	—	n.a.	n.a.
6-6 TO 6-8	7	83.29	6.36	6	86.67	5.85	13	84.85	6.36	—	n.a.	n.a.
6-9 TO 6-11	5	87.20	2.23	6	80.33	12.02	11	83.45	9.63	—	n.a.	n.a.
	171			149			320			2447		

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Table 6

Correlation coefficients between DIAL-R subtests - Montreal Population

	Motor	Concepts	Language
Motor	1.00	.79	.75
Concepts		1.00	.79
Language			1.00

Table 7

DIAL-R original cut off points and suggested cut off points for Montreal population

Age (Yrs-Mos)	N	Original cut off points (U.S. norms)		% screened using U.S. norms		Suggested cut off points for Montreal population	
		Potential problem	Potential gifted	Potential problem	Potential gifted	Potential problem	Potential gifted
2-0 to 2-2	4	0	30	0	0	7	30
2-3 to 2-5	9	2	40	0	0	9	33
2-6 to 2-8	12	4	44	0	8	13	47
2-9 to 2-11	17	10	47	0	12	22	48
3-0 to 3-2	13	15	50	0	31	26	64
3-3 to 3-5	16	18	57	0	25	33	66
3-6 to 3-8	23	26	62	0	17	38	67
3-9 to 3-11	23	32	65	0	56	48	74
4-0 to 4-2	19	34	67	0	26	52	78
4-3 to 4-5	27	37	70	0	63	62	83
4-6 to 4-8	20	41	73	0	85	68	86
4-9 to 4-11	19	47	75	0	42	69	87
5-0 to 5-2	10	51	77	0	75	70	91
5-3 to 5-5	14	53	78	0	86	74	92
5-6 to 5-8	10	55	80	0	100	77	93
5-9 to 5-11	20	57	81	5	75	78	94
6-0 to 6-2	19	58	82	5	63	79	95
6-3 to 6-5	15	59	83	0	87	80	96
6-6 to 6-8	13	60	84	0	70	81	97
6-9 to 6-11	11	61	85	9	82	82	98

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